

# Notice of Allowability

Application No.

09/925,559

Examiner

Callie E. Shosho

Applicant(s)

CAVAZOS-GUTIERREZ, RODRIGO

Art Unit

1714

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 3/4/04 and telephonic interview conducted 5/13/04.
2. ☒ The allowed claim(s) is/are 3-5, 7-11 and 14.
3. ☒ The drawings filed on 09 August 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 5/13/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Callie E. Shosho  
Primary Examiner  
Art Unit: 1714

**Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) Claim 9, line 2, after "vapor" and before "and/or", delete ", on the cured and heated".

(2) Cancel claim 12.

(3) Cancel claim 13.

**NOTE:** Claims 7-11 previously withdrawn from consideration under 37 CFR 1.142 have been rejoined.

2. Authorization for this examiner's amendment was given in a telephone interview with Jay Cinamon on 5/13/04.

**Statement of Reasons for Allowance**

3. Claims 3-5 and 14 are allowable over the “closest” prior art JP 07070501, Glesias (U.S. 5,100,934), and Hashimoto et al. (U.S. 5,821,031) for the following reasons:

JP 07070501 discloses ink comprising 100 parts polyurethane, 100 parts epoxy, 10-200 parts aliphatic polyisocyanate, and polyethylene wax. However, there is no disclosure that the ink is UV curable and no disclosure that the ink is for glass substrates as presently claimed. Further, there is no disclosure or suggestion in JP 07070501 of polytetrafluoroethylenic wax or adhesion promoter as required in the present claims. It is noted that for completeness, a copy of the English translation of JP 07070501, previously unavailable, has been included with this office action.

Glesias disclose ink comprising epoxy resin, polytetrafluoroethylenic wax, and polyethylene wax. However, there is no disclosure that the ink is UV curable and no disclosure that the ink is for glass substrates as presently claimed. Further, there is no disclosure or suggestion in Glesias of polyurethane, blocked polyisocyanate, or adhesion promoter as required in the present claims.

Hashimoto et al. disclose UV curable ink for copper clad board comprising copper foil and glass substrate wherein the ink comprises epoxy resin, diluent, photoinitiator, and UV curable resin. While Hashimoto et al. disclose the use of blocked isocyanate, polyurethane, and adhesion promoter, the use of these ingredients is optional. Further, there is no disclosure in Hashimoto et al. that the UV curable ink comprises 80-95% epoxy-urethane ink or any disclosure or suggestion of polytetrafluoroethylenic wax and polyethylene wax as presently claimed. Further, there is no disclosure or suggestion in Hashimoto et al. that the silane adhesion

promoter is independently applied to glass substrate before the ink composition so that the blocked isocyanate promotes a polymerization reaction and a crosslinking reaction between the epoxy-polyurethane ink and the adhesion promoter when heated to form an interpenetrating network as required in the present claims.

Thus, it is clear that JP 07070501, Glesias, and Hashimoto et al., either alone or in combination, do not disclose or suggest the present invention.

In light of the above, it is clear that the rejections of record are untenable and so, claims 3-5 and 14 are passed to issue.

4. Claims 3-5 and 14 are directed to an allowable product. Pursuant to the procedures set forth in the Official Gazette notice dated March 26, 1996 (1184 O.G. 86), claims 7-11, directed to the process of making or using the patentable product, previously withdrawn from consideration as a result of a restriction requirement, are now subject to being rejoined since claims 7-11 include all the limitations of the allowable product claims 3-5 and 14. Claims 7-11 are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Since claims 7-11 previously withdrawn from consideration under 37 CFR 1.142 have been rejoined and claims 12-13 previously withdrawn from consideration under 37 CFR 1.142 have been cancelled (see paragraph 1 above), the restriction requirement made in the paper mailed 4/7/03 is hereby withdrawn.

Thus, present claims 7-11 are allowable over the "closest" prior art JP 07070501, Glesias (U.S. 5,100,934), and Hashimoto et al. (U.S. 5,821,031) for the following reasons:

JP 07070501 discloses process for applying ink to substrate wherein the ink comprises 100 parts polyurethane, 100 parts epoxy, 10-200 parts aliphatic polyisocyanate, and polyethylene wax. However, there is no disclosure in JP 07070501 that the ink comprises polytetrafluoroethylenic wax or adhesion promoter as required in the present claims 7-11. Further, there is no disclosure in JP 07070501 that the process comprises (i) independently applying adhesion promoter primer composition to surface of substrate, (ii) applying the ink to the substrate by serigraphy or tampography, or (iii) curing the ink on the substrate by exposing the substrate to UV radiation as required in present claims 7-11.

Glesias disclose process for applying ink to substrate wherein the ink comprises epoxy resin, polytetrafluoroethylenic wax, and polyethylene wax. However, there is no disclosure in Glesias that the ink comprises polyurethane, blocked polyisocyanate, or adhesion promoter as required in present claims 7-11. Further, there is no disclosure in Glesias that the process comprises (i) independently applying adhesion promoter primer composition to surface of substrate, (ii) applying the ink to the substrate by serigraphy or tampography, or (iii) curing the ink on the substrate by exposing the substrate to UV radiation as required in present claims 7-11.

Hashimoto et al. disclose process for applying UV curable ink to substrate wherein the ink comprises epoxy resin, diluent, photoinitiator, and UV curable resin. While Hashimoto et al. disclose the use of blocked isocyanate, polyurethane, and adhesion promoter in the ink, the use of these ingredients is optional. Further, there is no disclosure in Hashimoto et al. that the UV

curable ink comprises 80-95% epoxy-urethane ink or any disclosure or suggestion of polytetrafluoroethylenic wax and polyethylene wax as presently claimed. Further, there is no disclosure that the process comprises independently applying adhesion promoter primer composition to surface of substrate or any disclosure of applying the ink to substrate by serigraphy or tampography as required in present claims 7-11.

Thus, JP 07070501, Glesias, and Hashimoto et al., either alone or in combination, do not disclose or suggest the invention of present claims 7-11.

In light of the above, it is clear that claims 7-11 are allowable over the "closest" prior art, and thus, claims 7-11 are passed to issue.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
5/14/04